

AMERICAN BEE JOURNAL

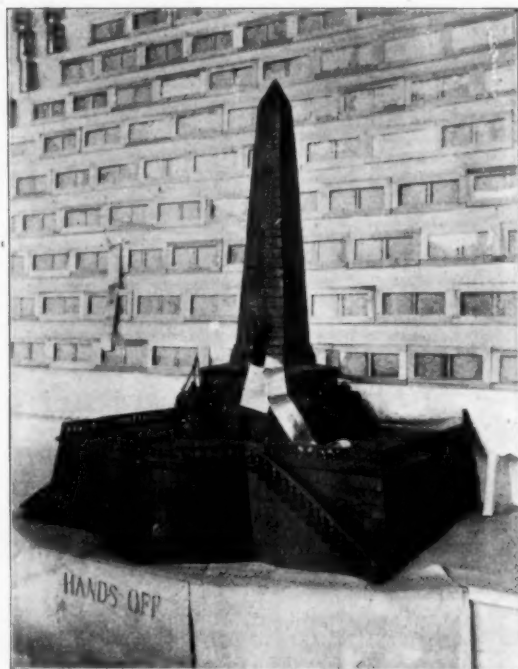


GEORGE W. YORK,
Editor.

CHICAGO, ILL., JANUARY 30, 1902.

FORTY-SECOND YEAR
No. 5

WEEKLY



COMB HONEY DISPLAY AND LINCOLN MONUMENT IN BEESWAX
SHOWN BY JAS. A. STONE & SON, AT THE ILLINOIS
STATE FAIR AT SPRINGFIELD, IN OCTOBER,
1901.—(See page 68.)

THE AMERICAN BEE JOURNAL

PUBLISHED WEEKLY BY

GEORGE W. YORK & COMPANY

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EDITORIAL STAFF.**GEORGE W. YORK**, - - - Editor-in-Chief.

DR. C. C. MILLER, } Department
E. E. HASTY, } Editors.
PROF. A. J. COOK, }

IMPORTANT NOTICES.

The Subscription Price of this Journal is \$1.00 a year, in the United States, Canada, and Mexico; all other countries in the Postal Union, 50 cents a year extra for postage. Sample copy free.

The Wrapper-Label Date of this paper indicates the end of the month to which your subscription is paid. For instance, "dec01" on your label shows that it is paid to the end of December, 1901.

Subscription Receipts.—We do not send a receipt for money sent us to pay subscription, but change the date on your wrapper-label, which shows you that the money has been received and duly credited.

Advertising Rates will be given upon application.

National Bee-Keepers' Association**OBJECTS:**

To promote and protect the interests of its members.

To prevent the adulteration of honey.
 To prosecute dishonest honey-dealers.

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MEMBERSHIP DUES, \$1.00 a year.

If more convenient, Dues may be sent to the office of the American Bee Journal, when they will be forwarded to Mr. Secor, who will mail individual receipts.

A Celluloid Queen-Button is a very pretty thing for a bee-keeper or honey-seller to wear on his coat-lapel. It often serves to introduce the subject of honey, and frequently leads to a sale.

NOTE.—One reader writes: "I have every reason to believe that it would be a very good idea for every bee-keeper to wear one [of the buttons] as it will cause people to ask questions about the busy bee, and many a conversation thus started would wind up with the sale of more or less honey; at any rate it would give the bee-keeper a superior opportunity to enlighten many a person in regard to honey and bees."

The picture shown herewith is a reproduction of a motto queen-button that we are furnishing to bee-keepers. It has a pin on the underside to fasten it.

Price, by mail, 6 cents; two for 10 cents; or 6 for 25 cents. Send all orders to the office of the American Bee Journal.



Alfalfa Honey--7 cents a pound in lots of 4 cans or more.

BEST

Extracted Honey For Sale

ALL IN 60-POUND TIN CANS.

Alfalfa Honey ❧

This is the famous White Extracted Honey gathered in the great Alfalfa regions of the Central West. It is a splendid honey, and nearly everybody who cares to eat honey at all can't get enough of the Alfalfa extracted.



Basswood Honey ❧

This is the well-known light-colored honey gathered from the rich, nectar-laden basswood blossoms. It has a stronger flavor than Alfalfa, and is preferred by those who like a distinct flavor in their honey.

Prices of Alfalfa or Basswood Honey:

A sample of either, by mail, 10 cents, to pay for package and postage. By freight—two 60-pound cans of Alfalfa, 7½ cents per pound; 4 cans or more, 7 cents a pound. **Basswood Honey**, ½ cent more per pound than Alfalfa prices. Cash must accompany each order. You can order half of each kind of honey, if you so desire. The cans are two in a box, and freight is not prepaid. **Absolutely Pure Bees' Honey.**

Order the Above Honey and then Sell It.

We would suggest that those bee-keepers who did not produce enough honey for their home demand this year, just order some of the above, and sell it. And others, who want to earn some money, can get this honey and work up a demand for it almost anywhere.

GEORGE W. YORK & CO., 144 & 146 Erie St., Chicago, Ill.

The Novelty Pocket-Knife.

Your Name and Address on one side—Three Bees on the other side.



[THIS CUT IS THE FULL SIZE OF THE KNIFE.]

Your Name on the Knife.—When ordering, be sure to say just what name and address you wish put on the Knife.

The Novelty Knife is indeed a novelty. The novelty lies in the handle. It is made beautifully of indestructible celluloid, which is as transparent as glass. Underneath the celluloid, on one side of the handle is placed the name and residence of the subscriber, and on the other side pictures of a Queen, Drone, and Worker, as shown here.

The Material entering into this celebrated knife is of the very best quality; the blades are hand-forged out of the very finest English razor-steel, and we warrant every blade. The bolsters are made of German silver, and will never rust or corrode. The rivets are hardened German silver wire; the linings are plate brass; the back springs of Sheffield spring-steel, and the finish of the handle as described above. It will last a long time, with proper usage.

Why Own the Novelty Knife? In case a good knife is lost, the chances are the owner will never recover it; but if the "Novelty" is lost, having name and address of owner, the finder will return it; otherwise to try to destroy the name and address, would destroy the knife. If traveling, and you meet with a serious accident, and are so fortunate as to have one of the "Novelty's," your POCKET-KNIFE will serve as an identifier; and in case of death, your relatives will at once be notified of the accident.

How appropriate this knife is for a present! What more lasting memento could a mother give to a son, a wife to a husband, a sister to a brother, or a lady to a gentleman, the knife having the name of the recipient on one side?

The accompanying cut gives a faint idea, but cannot fully convey an exact representation of this beautiful knife, as the "Novelty" must be seen to be appreciated.

How to Get this Valuable Knife.—We send it postpaid for \$1.25, or give it as a Premium to the one sending us THREE NEW SUBSCRIBERS to the Bee Journal (with \$3.00.) We will club the Novelty Knife and the Bee Journal for one year, both for \$1.90.

GEORGE W. YORK & CO.**Chicago, Ill.**

Please allow about two weeks for your knife order to be filled.



AMERICAN BEE JOURNAL

ESTABLISHED IN 1861 THE OLDEST BEE-PAPER IN AMERICA

42d YEAR.

CHICAGO, ILL., JANUARY 30, 1902.

No. 5.

Editorial.

The California Convention was held in Los Angeles, Jan. 16 and 17. The following officers were re-elected:

President, G. S. Stubblefield; secretary-treasurer, J. F. McIntyre; vice-presidents, G. W. Brodbeck, H. E. Wilder, G. F. Merriam, M. H. Mendleson, and H. C. Williamson.

A Los Angeles newspaper report refers to the convention in part as follows:

It was decided to organize the business end of the Association on the plan of the Southern California Fruit Exchange, and to dispose of the honey crop through the latter's selling agencies, thus saving the association the extra expense of conducting independent agencies.

Each county will be organized into a separate exchange, each to elect one of its number to become a member of the Southern California Honey Exchange in this city, which plan centralizes the business here.

The following apiarists were appointed to organize their separate counties: Solas Wood, Santa Barbara; J. F. McIntyre, Ventura; R. B. Borden and R. G. Clark, San Diego county; E. A. Honey and Emerson Bros., Orange county; C. B. Schwack, Riverside; D. A. Wheeler and H. C. Williamson, San Bernardino; Frank McNay, Los Angeles.

J. F. McIntyre, Maj. G. H. Marion and Prof. A. J. Cook, were elected as the Executive Committee. E. A. Honey, Frank McNay, T. F. Arundell and Allen Barrett were afterward added to the committee.

By organizing on the basis of the fruit exchanges, and disposing of their honey just as fruit is now marketed, the bee-keepers hope to work together in the upholding of the price of their product, and to help each other through the present dry and unprofitable season.

Read Up Back Numbers.—If you are like most bee-keepers, you are busier in summer than in winter. Often it happens that in summer the bee-keeper is so busy that when he receives a copy of this or any other bee-paper, his reading is more or less hurried, and sometimes the reading of some articles or parts of them are omitted altogether, because they do not seem at the time of immediate interest. When leisure comes for more reading in winter, it is well to go over back numbers, not only to read what may have been entirely omitted, but what may have been read in such haste as not to receive due consideration. Indeed, you will find many a time, that what you supposed was of no interest at first will be found later on to be of great practical interest. Then, too, the things that you read with care will generally bear reading again. An article that you read last June, may, because of something that you have since learned either in practice or from reading,

have such a different bearing that it will be practically new to you.

This advice will not be needed by those who are well to the front as bee-keepers, but to those who have not been in the habit of giving more than one reading to each number of the bee-paper they receive it may be well to suggest the advisability of trying the experiment of giving at least a second reading to them.

Wrong Spraying Advice.—Mr. John M. Sutton wrote us as follows, Jan. 18:

EDITOR AMERICAN BEE JOURNAL— I have recently received from the Government, Farmer's Bulletin No. 38, or "Spraying for Fruit Diseases." This is a reprint originally published in 1896. On page 11, I find the following:

"Use bordeaux mixture, making the first application before the blossoms open. When the flowers are opening spray again, etc."

It seems to me this is in direct opposition to the present teachings, and should be corrected. I am sorry to see it in a Government publication.

JOHN M. SUTTON.

Certainly, all that is necessary is to call the attention of the Department of Agriculture's attention to its contradictory advice, when it will hasten to make proper correction. It is a good thing to report such matters when discovered, as even the Government sometimes makes mistakes.

Meltose Again.—Eugene Secor, the general manager of the National Bee-Keepers' Association, wrote us as follows recently.

FOREST CITY, IOWA, Jan. 18, 1902.

EDITOR AMERICAN BEE JOURNAL— Dear Sir:—Mr. F. L. Thompson, of Colorado, sent me, Dec. 14, 1901, a circular of a health food company doing business in that State, and called the attention to one paragraph which was objectionable to bee-keepers. I wrote the company and herewith submit the correspondence in full.

Respectfully yours,

EUGENE SECOR, Gen. Man.

Here follows Mr. Secor's letter to the health food company, dated Jan. 3:

GENTLEMEN:—I have your folder on health foods, and am glad to commend your general Pure Food Proposition. We have used a good deal of Battle Creek foods with satisfactory results.

But I notice under the paragraph describing "Meltose" these words:

"It should be substituted for Cane-Sugar Honey and all artificially prepared sweets."

I wish that this sentence might be altered slightly, as it conveys a wrong impression to would-be users of honey.

The fact is there is no such thing on the market as *cane-sugar honey*. It would not pay to adulterate with cane-sugar. The adulterations of honey are exclusively, I might say, of glucose, and in the extracted form.

Comb honey may be relied on as *pure*, or as natural product gathered by the bees.

Now can't you eliminate the word "Honey,"

or add the word "adulterated" after the word "sugar," followed by a comma?

Make all the war you please on adulterated honey, but it is misleading to call it *cane-sugar honey*.

May I ask your reconsideration of this point?

Sincerely yours,

EUGENE SECOR, Gen. Man.

Whereupon the company written to responded as follows, under date of Jan. 6:

EUGENE SECOR, Forest City, Iowa.—

Dear Sir:—We have your letter of Jan. 3d, in regard to a misleading thought in our circular. Meltose is a pure product, and is designed to take the place of cane-sugar, and artificial sweets. Honey is a natural product, perfectly pure, and we do not class it among sweets that are harmful. On the contrary, we use it on our own tables very freely. The word *honey* should not have gotten into the circular, and was an oversight. We will see that the misleading thought is corrected.

Thanking you for calling attention to the matter, we are, Yours very truly,

The above is just the kind of work the National Association should be doing constantly. It is educative. It is a benefit to the public to have such corrections made, and also a ways helps the cause of pure honey and its producers.

But why cannot bee-keepers themselves, from this time on, be on the lookout for misleading statements about honey, and write to the people who make or publish such errors regarding honey? A few of us can not do it alone, but all must help in the work of letting the public know more about pure honey.

Maeterlinck's "Life of the Bee,"

which at first was received almost as a work of perfection, is of late having its faults noticed. D. M. M., in the British Bee Journal, says, "I have only words of praise for Mr. Maeterlinck's book;" and then with what can hardly be entire consistency immediately adds:

"I would, however, much prefer if it had not contained a single word of the moralizings of his physiologist friend. This is an excrescence, pure and simple, which could well be lopped off."

Then he enters a somewhat emphatic caveat against the view of the author that the peasantry are filled with malevolence pure and simple.

Are Commission Merchants Dishonest as a class? In the Progressive Bee-keeper

G. M. Doolittle answers this question in the negative. For 25 years he has shipped honey to commission merchants, shipping to as many as 25 different ones, and he thinks "commission men as a class compare favorably with any other class of men in the United States."

Weekly Budget.

JAS. A. STONE & SON make annual exhibits at the Illinois State Fair. On the first page and also on this page is shown the display they made at the last Fair. All the Lincoln Monument lacks is the statuary. It was made by the son, "Percy," and must have involved considerable work. Both the comb honey display and the monument received the 1st premium, or blue ribbons, as, apparently, they well deserved.

The Illinois State Fair has had fine displays in its apiary department for several years. While the number of exhibitors has not been large, the displays have been both large and good. In fact, this department is one of the most attractive of the whole Fair, and Jas. A. Stone & Son have contributed no little to this result.

Mr. J. B. Dodds, the bee-inspector for Jefferson Co., Colo., has been in Chicago for about two weeks. He came with a car-load of No. 1 alfalfa comb honey, which he was holding at \$3.00 per case. A dealer here purchased 100 cases of it, and found that it weighed all the way from 17½ pounds to 24½ pounds, net, of honey per case. So the lightest cases cost about 17 cents per pound, while the honey in the heaviest cases cost about 12 cents. While it may have been all right to sell or buy the 100 cases, as a lot, by the case, any one may easily see the injustice it would be to the consumer were a case of the lightest sold to him at the same price as a case of the heaviest.

As the 100 cases averaged practically an even 20 pounds net per case, there was no injustice done the buyer or seller of this particular lot.

A GREAT MAP.—Calvin L. Walton, Ph. D., is a professor in the Lake View (Chicago) High School, and an instructor of marked ability. He has one of the maps that we are offering, and he expresses his opinion concerning its value in the following unsolicited manner:

DEAR EDITOR YORK:—For some time I have been waiting for a good opportunity to tell you how much we appreciate the Reversible Wall Map of the United States and the World, but find none better than the present. I say *we*, not in any editorial sense, but in a broad family way, meaning the entire household.

In the first place, the maps are very attractive in appearance. The bright colors will catch the eye and hold the attention of even the smaller children of the home, and they are studying geography before they know it.

In the second place, it is up-to-date and thoroughly reliable. The publishers have too good a reputation to maintain to allow any faulty or inaccurate map to go from their press, so whatever knowledge the boys and girls get from the study of these maps will not be gainsaid anywhere.

In the third place, there is a whole encyclopedia of geographic information on the two sides of the map. In country homes, where reference books are few, the marginal references will be found very ample and complete, so that when the map is thoroughly mastered one will have a very broad and comprehensive knowledge of geography and geographic history. The ocean currents, which have such an influence on the distribution of temperature, and which exercise such a general climatic control, are clearly defined and easily traced. Then the routes of the ocean vessels are

graphically shown, and one can see at a glance the growing need for a deep-water isthmian canal to connect our eastern and western coasts.

The most convenient place for hanging the map temporarily was the dining-room; and as we occupy but three sides of the table, the map was hung where all could see it, especially nine-year-old Arthur, who is studying geography in the public school. During meal-time the conversation generally gets around to some phase of geography or travel, owing to the presence of the map, and we find it infinitely better to talk about foreign places and people than about the block in which we live and the good (?) neighbors all around us.

I would most heartily recommend the map to every member of Prof. Cook's "Home Circle," (that includes every reader of this journal), feeling confident that the nominal price asked for it will indeed seem small when compared with its actual value and its educational influence in the home.

C. L. WALTON.

We believe Prof. Walton has not said a word too much in commendation of the map. It is indeed a fine one, and should adorn the

well, I think. I owe most of my success to the reading of bee-literature, especially the "Old Reliable" and other papers. Long may they live to proclaim the wonders of bee-dom, and speak for truth, temperance and righteousness.

R. RODENBERGER.

THE MEXICAN MUTUAL PLANTERS Co., writing us from Old Mexico, Jan. 8, reported that bees there were "doing well, queens laying, pollen coming in, and comb-building going on splendidly." Quite a difference between the condition of bees there and in Manitoba, Canada, on the same date.

Mr. Wm. W. CASE, of Hunterdon Co., N. J., is doing some good work in his locality to down the comb-honey lie that some people have been helping to circulate. In the Hunterdon County Democrat, under date of Dec. 31, 1901, Mr. Case has quite an article which includes the \$1,000 reward offered, and a



DISPLAY OF JAS. A. STONE & SON AT THE ILLINOIS STATE FAIR AT SPRINGFIELD, IN OCTOBER, 1901.

walls and instruct the people of every home. The price of the map alone is \$1.50 prepaid, or, if taken with a year's subscription to the American Bee Journal, both will be sent for only \$2.00. If we ever made a good offer to our readers it is this one. It shows *all the counties* of every State of the United States.

MR. R. RODENBERGER, when sending the picture of his apiary shown on page 78, wrote as follows:

In the spring of 1895 I caught the bee-fever; so I bought two colonies of bees in box-hives and transferred them into new ones which I had made the previous winter. I now have all hives and frames exactly alike, and all numbered as will be seen in the picture, which was taken two years ago. I now have 51 colonies.

Before I began with bees, I did not know the least thing about them, but got several text-books on bee-culture and have read everything I could get hold of ever since.

I sold my home last fall in Waukesha County, and bought a farm in Milwaukee County, where I am now located. I successfully moved my bees on one load, Nov. 15, a distance of 25 miles. I expect this to be a better location, as there is a great deal of sweet and white clover as well as basswood and golden-rod.

Considering all things, I have done fairly

statement of how the comb-honey lie was given to the public by Government Chemist H. W. Wiley, about 20 years ago.

It seems that Mr. J. S. Triggs, of Iowa, (see page 35), conducts a farm department in the paper Mr. Case wrote to, and the editor, in introducing Mr. Case's article, says Mr. Triggs signs his name and address, "and we have no doubt that he will either prove he is right or admit that he has been led into a misstatement by being misinformed."

We understand Mr. Triggs has since then done the handsome thing by admitting his error, and is doing all he can to counteract its mischievous effect. As soon as we see Mr. Triggs' correction we will place it before our readers.

But let all get "The Truth About Honey" published wherever they can.

H. W. CORNELISON reports that he started last spring with 93 colonies of bees and got 4,000 pounds of honey, for which he received \$475, and an increase of 25 colonies of bees, not counting the honey his family consumed. —Wasburn Co., (Wis.,) Register.

Contributed Articles.

No. 5.—Apiculture as a Business.

Producing Not All; Marketing a Large Problem —Difference Between Selling at Home and the Foreign Trade—Effect of Competition.

BY R. C. AIKIN.

In No. 4 I called attention to some reasons why beekeepers fail in getting a crop and of making it pay, thus causing financial failure and bankruptcy, and the direct and indirect effect upon others. I now wish to show how, in large measure, to avoid these expensive failures.

First and foremost, remember that there are many people—bright and sharp people—who are giving time, money and energy to discover short cuts, cheaper methods of production, and in every way possible increase profits. When they succeed in very materially lowering the cost of production, whether it be by labor-saving devices, improved stock, methods that get 3 pounds of honey where but 2 used to be gotten, better marketing schemes, it matters not whether by all these combined, or how the product is cheapened, they can and will make it hard for the less experienced. If one proposes to go into any business, he should ask many questions, observe how others are accomplishing results, and whether the results are satisfactory. Try as hard as we may, and learn all we can from all sources, yet we will be behind—some other fellow outwits us.

Suppose some one wants to go into honey-production at this place. Suppose he finds out just what prices I get at the honey-house, and the wholesale prices at which I supply the stores. Knowing these things, is he ready yet to produce, expecting to sell his product upon this market? No; he has yet a large problem before him. He may be my equal as an apiarist, get as good crops, pack just as well, in every respect be my equal up to the point of having a nice product to sell; he then finds I have the trade, and if he gets it he has quite a job on hand. He must advertise, push and work up a trade.

So far I have been speaking of the local or home market. The facts are that I am now producing much more honey than our local market consumes, and in addition ship out large quantities. If any other apiarist opens a producing plant here he may in time divide my home trade with me, causing me to export more.

One fact must not be lost sight of in a producing field like this—the home consumption will not use the entire product, we must export the surplus. And, to increase the home consumption, we must lower prices if we are to sell the greatest possible amount at home. I do not mean that this is the only way to increase consumption, but that is one of the things that must be done to reach the highest possible home consumption, or outside, either. We may sell, say at 10 cents, and after having exhausted all other means a 2-cent drop will further increase the consumption. Putting the price on an equality with sweets of equal grade, or a little lower will bring the product into favor and displace more or less the other goods.

The real truth of the matter is, the marketing of a crop of honey is about as big a job as producing it. In producing, we have but the bees and ourselves to deal with, but in selling there is a multitude of people to please. One may be well fitted to produce, an expert with insects, yet a failure in dealing with his own kind. There is no use denying or ignoring the fact that to produce any kind of crop is but little better than half the battle. Every prospective apiarist should not only consider the matter of producing, but as well, how to market or get cash out of his product.

The home market is nearly always the best; it usually nets the most money; so much is sold that we do not have to supply a package for, nor are there any freights or middlemen's commissions to come out. At home we know better whom we are dealing with, less risks than when we ship, unless the bee is a firm sticking to the cash-with-order rule.

Successful home marketing is no easy matter; and away from home is harder still.

Some men can come into the field fully occupied, and, because of superior ability, or an advantage in facilities, or otherwise, drive out competitors. But only those without a proper moral conscience will do so; there should always be fairness in such things—in all things. There is, in this vicinity, some territory that would bear more stock, but the near-by and desirable places are already full. No one should think of coming into or very near to this town to engage in honey-production except by buying out some one already established; to do otherwise would be foolish, and an injustice to others now here. To put more stock into territory now well-stocked would reduce the yield per colony. It would mean that we must produce at a greater cost, and to make up for this we must sell greater quantities or at higher prices; but the rule is that it would be just the other way.

But let us see what else can be done: As I have said, there is country tributary to this that will produce more than is being taken from it—places that are not overstocked. But to occupy these one must go into undesirable places to live, or, living in the more desirable places, must have his stock far from home and transport long distances, going far to work, and having far to haul. Besides this, there are the outside or general markets to contend with, the product must be largely exported—shipped to large centers of distribution, as Chicago, Kansas City, etc.

Considering these outside markets, Kansas City is the nearest to this point of the United States. Denver is not a honey market in the sense that Chicago or Kansas City and other Eastern cities are. The immediate vicinity of Denver produces more than the city consumes, and so does the country over much of which Denver is a distributing center. Denver cannot be a distributing center for any great quantity of honey, although she does, and will, sell much by car-load sent to Eastern markets. This being true of Denver, the Colorado apiarist in any field that produces more than the immediate home consumption, must look to wholesale shipments by car-load to dispose of his surplus. These car-load shipments mean competition with the producers in the country to which we ship, or who are nearer to the consuming point; these near-by producers having the advantage by the amount of the difference in freight.

Of course, there will be many readers to whom all Colorado conditions do not apply, yet some of them will, and I am trying to cover the whole field and make this reach the greatest number of people.

I would say, then, do not fail to look carefully at all the various things that you must confront when you embark in the business. Let those who are in contemplation count well the cost, and as well let those now in the business see if they cannot find where they can improve. I write that, if possible, I may help those going into the business to go in right, for an intelligent and successful apiarist cannot begin to do the harm to *self and others* that is done by the careless and blundering.

I have already shown in previous articles that it takes a real, practical apiarist to succeed in getting the crops; and now in this article I am endeavoring to show that you need, and must have good marketing, or you fail. Consider well all these phases ere you jump. I will follow this with more of the minute details of management. Larimer Co., Colo.



Some Interesting Questions Answered.

BY G. M. DOOLITTLE.

A correspondent from Mohawk, N. Y., sends in the following questions, asking that I answer them in the American Bee Journal, and requests if any reader of this paper can throw any more light on the subject, that he will also answer them after they appear in print. Thus answering would be something after the old question or "query" department the American Bee Journal used to conduct, and I hope to hear from others who may have different opinions from mine.

GETTING HONEY FROM CAPPINGS.

1. "What is the best way to remove honey from cappings which will not run out?"

In my opinion the best way is to throw the cappings into the solar wax-extractor and allow "Old Sol" to look in on them for two or three hours. Then cover up, and the

next day lift the cake of wax off the honey, when you have both wax and honey in shape to use.

2. "Could these cappings be pressed in a cheese-press? If not, why not?"

I am not enough acquainted with a cheese-press to answer intelligently; but my judgment would be that the result would not be satisfactory; and that when the press was used for cheese again there would be some "tall talk" about that "nasty, sticky press." Rather than do that, I would rinse the cappings in water, and use the water for making vinegar.

UNCAPPING MACHINES.

3. "Do you know how Arthur C. Miller's uncapping machine is made?"

No, I do not know. If there is no secret about it, will Mr. Miller tell us about this matter through these columns?

PLACING COMBS IN THE EXTRACTOR.

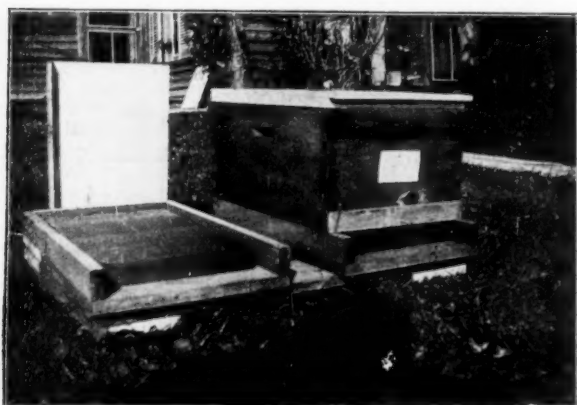
4. "Would a honey-extractor work if the combs were placed with the top-bar toward the center shaft and the bottom-bar out toward the side of the can? If not, why not?"

If I am correct, the honey-extractor works on the principle, that, when set in motion, the centrifugal force is greater than the atmospheric pressure on the honey in the cells, and this causes the honey to leave the cells, or fly from the cells, out and away, from the center, the same as water leaves a rapidly-turning grindstone and flies off and away from the stone. With the combs placed as our questioner suggests, the centrifugal force would cause the honey to press against the sides of the cells, rather than out at the open ends, and hence little or no headway could be made toward accomplishing the desired results. I should be pleased to hear from others in this matter. As the cells in honey-comb generally incline slightly upward, it would appear that better results could be secured, if any, by turning the top-bar toward the can and the bottom-bar toward the central shaft; but I do not think there is anything practical in the idea, anyway.

VENTILATING HIVES—CELLAR WINTERING.

5. "How should hives be ventilated while in the cellar? That is, at the top and entrance. Can they be stacked up as described in the Root catalog and not have the bees pile out all over the cellar and the one stacking them up?"

I use the Dr. Miller bottom-board and like it very much. This bottom-board has a bee-space on one side—the side



HIVE BOTTOM-BOARD USED BY DR. MILLER.

used during the working season—and a two-inch space on the other, which answers for a stand during the summer, and a place for the bees to cluster in during winter, when the board is "winter side" up; that is, where the cluster is large enough to hang below the combs, the cluster hangs down in this space. This space also allows all dead bees to fall below the combs, and gives all the ventilation necessary without further provision, during the time they are in the cellar. It also keeps the bees from falling off the combs, or getting out over yourself and the cellar-bottom, while putting in and taking out, as a small board closes the hive up tight while carrying in and out of the cellar. But, if the hives are reasonably handled, and the proper amount of care used, not to arouse the bees, as is best under

all circumstances, very few bees will leave the hive in putting in and piling up in the cellar.

While at the Auburn, N. Y., bee institute, a Mr. Mills gave us something new, which was that he made rims of $\frac{7}{8}$ -inch lumber of the size of the hive, and $1\frac{1}{2}$ inches deep, on one side of which he tacked the common wire-cloth, such as is used in caging and shipping queens and bees. On warm days, just before time to put the bees into the cellar, he tacked one of these rims at both top and bottom of each hive, the wire-cloth side being out from the hive, and a small entrance, being readily closable, provided in the bottom rim, for the use of the bees, should they have more days of flight before putting in. When putting in, this entrance was closed, and a piece of carpet was placed on top of the wire-cloth at the top, when the hives were piled up, rims all on, and no chance for a single bee to escape during all the winter, the same way Mr. Root pictures in his catalog.

Being told that this was contrary to all old practices, and asked if he had no trouble with the bees trying to get out, he said he was quite positive that he had less loss, and stronger colonies in the spring, in this way than in any other; while he avoided all loss of bees from flying out, and the disagreeableness of dead bees on the cellar-bottom. If my life is spared, I shall try this plan in a limited way next winter, as the dead bees on the cellar-bottom are always a nuisance.

PASSAGE-WAYS THROUGH COMBS.

6. "Which do you prefer, all things considered, holes through the combs, or a bee-space over the frames for wintering?"

I thoroughly tried the holes through the combs a score of years ago, and proved them of little if any advantage, while they were a very great nuisance to make, and after being made, were a still greater nuisance in having the bees fill them up the next year with cells of the drone size, so that each hive having such combs sent forth hundreds of drones above what I desired, so I gave the thing up as something not worthy of practice. My hives are so constructed that there is always a bee-space over the frames, and with the Mills plan, this space is one and one-half inches for the bees to pile up in, if they so desire.

CHOOSING A LOCATION FOR BEE-KEEPING.

7. "If you were single, at liberty to go where you wished, and intended to make bee-keeping your life work, what State would you choose, all things considered?"

According to the question, I would hunt out some good, unoccupied place in New York or Vermont, were *honey-production* to be my life work. Undoubtedly there are other States which would give a more agreeable climate, and might give a larger yield of honey, but the honey-resources of these States are immense, in favored localities, while their nearness to the great markets of Boston, Philadelphia and New York, which (with Chicago), govern the markets of the United States, makes a market facility unequalled by any other State giving an average good yield.

THE LONG-IDEAL HIVE FOR EXTRACTED HONEY.

8. "Is not the long-ideal hive the best hive for the production of extracted honey?"

It might be, were it best to extract every three or four days during the honey-flow, but as such a course is of questionable wisdom, the hive that allows of tiering-up while the honey is ripening, has the advantage, as I now see it. If there are others who think differently, I should be pleased to hear from them.

Onondaga Co., N. Y.

Our Wood Binder (or Holder) is made to take all the copies of the American Bee Journal for a year. It is sent by mail for 20 cents. Full directions accompany. The Bee Journals can be inserted as soon as they are received, and thus preserved for future reference. Upon receipt of \$1.00 for your Bee Journal subscription a full year in advance, we will mail you a Wood Binder free—if you will mention it.

Please send us Names of Bee-Keepers who do not now get the American Bee Journal, and we will send them sample copies. Then you can very likely afterward get their subscriptions, for which work we offer valuable premiums in nearly every number of this journal. You can aid much by sending in the names and addresses when writing us on other matters.

* The Afterthought. *

The "Old Reliable" seen through New and Unreliable Glasses.
By E. E. HASTY, Sta. B Rural, Toledo, O.

PHOTOGRAPHING A BEE.

Honorary mention to Collins, of Denver, assisted by D. W. Working, for their photo of the bee, on the front of No. 50. We should have called it the photo of a live bee if they had not "given themselves away." Anyhow, the assistant knew enough of bees to put things in life position. What are those little spurs half way up the ligula? I think they are visible when we closely examine live bees, and they are very distinct in this picture; yet I don't remember to have ever seen a word about them in the scientific accounts. That the tip of the ligula has a semi-identity of its own, other than being a mere prolongation, is very natural—and praiseworthy.

Room for lots more of this magnified photo work before we reach Had-enough-town. Various parts of the bee (alive if possible) would be very welcome. Several years ago, if I remember aright, Ernest Root got a lucky snap-shot of a bee on the wing, which has done good service as a basis of pictures since.

A LONG-TONGUED NUMBER.

No. 50 seems to be a long-tongued number. All right, say we. No danger of getting too many facts on the subject. Say what you will about the uncertainties, we cannot afford to ignore any bright light which appears in front—only don't expect too much, or get too excited. When Mr. Rankin says that in five years' work for the Michigan Experiment Station he has found the best gatherers to be the long-tongued bees, as a rule—well, the testimony may not be final, but it is not to be pooh-poohed. If the tongue keeps on growing for some time after the bee starts out in life, that's an awkward fact which we must look a little out for, and be sure that we have mature bees.

"Nature has been breeding this tongue to a standard length for so long a time that it is not likely to vary rapidly under artificial selection."

If you're drunk on the new fad, drink a little of that and sober up. Thanks, Prof. Gillette. The professor is excusable for wondering how one or two hundredths of an inch can help very much on red clover. 'Sneets the *real distance* that nectar can actually be taken out of a tube varies much more than that. Interesting to see that the Cyprians lead. Just what might be expected, considering the vim of the race, and the severe conditions under which nature has bred them. It was not the lack of ability to get honey out of a posy that banished the Cyprians, but a job lot of unendurable qualities. But oh! for a honey-bee with a bumble-bee's snout on it! However, probably the shrinkage of the bumble-bee's dissected tongue is much less than in the case of the smaller species—to the extent that the honey-bee in actual work will compare better than do the figures on page 793.

HONEY FROM RED CLOVER.

Prof. Gillette wonders if those who have reported honey from red clover may not have been mistaken. By no means. Theoretically there are at least four different ways bees can gather it. When honey conditions are most favorable the whole inside of the tube, below the funny little knob which closes the top, appears to be moist with nectar (whether by secretion on the spot or by percolation from below does not matter;) and presumably all that's needed to get nectar is sufficient time and patience in licking at the damp surface. Furthermore, carpenter bees are quite plenty in some places, and they in gathering from red clover punch holes in from the outside. Presumably honey-bees could get quite a bit by following their path next day. Thirdly, we often see clover-tubes with a long section of the bottom filled with nectar. It is *supposed* that they sometimes fill up within reach of the honey-bee's ligula. Fourth, a fall drouth shortens the tubes of second crop clover materially; and they are supposed sometimes to be so short that the honey-bee can reach the bottom.

WATCH THE TONGUE-REACH.

I think brethren who feel at all *satisfied* with the dissection measurements would do well to spend a few hours closely watching bees at work on the stalks of sweet corn (as they do not infrequently), and see if their notions about the bee's ligula are not modified somewhat. In this work bees thrust the ligula between the sheath of the leaf and the stem—and it being a tight squeak they often fail to get under, and so by accident extend it along the outside in plain sight. My memory of this observation is that I was surprised at the length of their reach. Perhaps the professors will be.

Convention Proceedings.

Report of the Ontario Bee-Keepers' Convention, Held at Woodstock, Dec. 3, 4 and 5, 1901.

REPORTED BY R. F. HOLTERMANN.

(Continued from page 55.)

SIZE OF HIVES—CELLAR TEMPERATURE.

Ques. 1—Is a larger hive than an 8-frame desirable?

Mr. Hall said for extracted honey, the large one. He has one equal to an 11-frame Langstroth. For extracted, he wants the latter, for comb he does not care which.

Ques. 2—How close should an apiary be located to a dwelling so as to cause no annoyance?

Mr. Hall—I prefer them close, but you must manage rightly. The queens in cross colonies should be killed.

Mr. Sibbald—Much depends on how the bees are handled. Pres. Newton related an instance where the bees were clearly made cross through bad handling.

Ques. 3—What temperature is nearest correct for proper cellar-wintering?

Mr. Hall—44 degrees, I like. I have wintered bees well at 52 degrees.

Mr. Pettit—Why then want 44 degrees? Do you not think there were conditions you did not consider?

Mr. Hall—No doubt.

Mr. Smith—44 to 50 degrees. I think it does them good to get a warming up occasionally.

Mr. Pettit—Seems much depends on the cellar. I believe and acute ear is the best guide.

BEEES HANGING OUT—QUEENLESS COLONIES.

Ques. 4—If bees hang out of the hive, is it an indication of no honey-flow, or is something wrong with the bees?

If others are bringing in honey, and bees in certain hives are loafing, they are probably preparing to swarm. If a few bees are on the bottom-board, the colony is probably queenless.

Ques. 5—What is to be done with queenless colonies early in the spring?

If they have lots of honey, set them on top of another hive. It is not advisable to give them a queen.

RETAILING EXTRACTED HONEY—CARNIOLANS AND ITALIANS.

Ques. 6—What is the best way to put up extracted honey for retail trade?

One pound, 1½ and 3 pound jars, to dealers.

Mr. Evans—I want, for my customers, nothing less than 10 pounds.

Mr. Smith—It depends largely on the class of trade. We put it up in 10-cent tumblers to 5-pound pails.

Mr. Sibbald—In Toronto there are six half-pound jars sold to one one-pound jar.

Mr. Holtermann said it largely depended upon what the retailer educated the people to use.

Mr. Darling—It is not well to sell too large a package.

Mr. Craig—We must regulate ourselves by our local conditions.

Ques. 7—Does crossing Carniolans with Italians produce cross bees?

It does and it does not. Weed out the cross.

COMB FOUNDATION—BEST RACE OF BEES.

Ques. 8—Give us the most profitable method of getting foundation made into comb.

Give to the bees when gathering honey pretty fast.

Mr. McEvoy—Alternate sheets of foundation and combs. It is not profitable to hive bees on full sheets of comb foundation.

Mr. Hall—For extracted honey hive on full sheets, every time.

Ques. 9—Which is the best race?

All of them.

Mr. Smith—Judging from advertisements, the long-tongued.

Mr. Dickinson—Are we to understand that the long-tongued bees are a humbug?

The general opinion was that the long-tongued question had been stretched rather too far.

WEDNESDAY—MORNING SESSION—DEC. 4.

The session opened by the president calling upon Prof. Shutt, chemist of the Dominion Experimental Farm at Ottawa, to give the result of the tests conducted by them in connection with

The Specific Gravity of Honey.

Prof. Shutt said that some years ago some experiments were conducted by the Experimental Farm with comb foundation. In the discussion the question came up of the amount of water found in various samples of honey. There was no Canadian data, and in other books he found a variation of 10 to 15 percent of water. As a result of this Mr. Shutt desired to do some work in this direction, and the same was undertaken with the following results:

With the object of finding the percentage of water Mr. Shutt made a request for samples with which to work, yet no samples had been forwarded by the Ontario Bee-Keepers' Association, and the samples experimented on were from Mr. Fixter, of the Ottawa Experimental Apiary.

Mr. Shutt said that, greatly to his disappointment, he could not tell the members in convention assembled the percentage of water in normal honey. Honey is not a material collected by the bees, but the honey is nectar altered by the bees through chemical additions, a change similar to that which takes place in a portion of our digestive system. There is in honey two sugars closely related, the one sucrose, cane-sugar (dextrose), and another, levulose. This difference was detected by polarization. Results from chemical analysis had shown a great difference in the percentage of water in honey, but Mr. Shutt believed that this great difference was real to only a certain extent, and the great variability only seemed to be so. The work has been done by eminent men, and men of reputation. Why, then, the difference? In honey the portion which crystallizes is the dextrose, the levulose never crystallizing; the latter is also very sweet. Levulose is very liable to decompose, and this decomposition, taking place in drawing off the water, unless condensed, gives the appearance of an increased amount of water in the honey.

The samples taken were, uncapped honey, half-capped honey, and full capped honey.

Four lots were taken of each of the above, two lots covered with a glass stopper, and two with a cheese-cloth. One of each set was put in the honey-house and in the cellar, to test to what extent, it any, exposure to the atmosphere in the honey-house and the cellar influenced the percentage of water and flavor of the honey.

In applying heat to honey, even when the temperature is below boiling water, it decomposed the levulose as well as drove off the water. Therefore, the percentage of water calculated by such a method is unreliable.

Heating honey rapidly, there was less loss than if heated slowly.

Prof. Shutt then referred to the Bulletin of the Inland Revenue Department, showing that one man's work gave almost equal percentage of water, yet varies greatly from another chemist's. The uniform result was probably owing to the fact that each chemist put the samples under his hand through a similar process. In one case was found 10 percent, another 16 percent, another 27 percent, of water. He claimed the difference lay in the treatment of the samples, and Mr. Shutt felt inclined to believe the percentage of water was nearer 15 than 30.

After 48 hours' drying Mr. Shutt's results were 15 percent; after another day, 1 or 2 percent more; after another day, more or less, and so on indefinitely. This method was therefore of no use at 70 degrees, Centigrade, or 158 degrees, Fahrenheit; even the honey decomposed.

Another method was by taking the specific gravity, the percentage of dry matter being deducted from the honey. In this way, instead of 21 percent of water, he secured 17 and 16 percent, which seemed to indicate that even at 126 degrees, Fahrenheit, there was some decomposition.

By the application of heat at 126 degrees the percentage of water in various samples was: 23 by specific gravity, 19 percent; 20 by specific gravity, 15 percent; 22 by specific gravity, 17 percent; 26 by specific gravity, 21 percent; 21 by specific gravity, 15 percent. In the latter case there was 5 percent less water. He was not prepared to say which was more correct. Mr. Shutt, however, favored the specific gravity. But next year he expects to make further tests and at lower temperatures.

To confirm the theory that the levulose decomposed, Mr. Shutt mixed equal parts of dextrose and levulose and took the specific gravity; also applied heat.

At the temperature of boiling water, after 48 hours 10 percent of the levulose had decomposed. After 120 hours, 18 to 19 percent was lost. Next, a temperature three-quarters the heat of boiling was applied; after 24 hours 5 percent of loss was recorded.

Prof. Shutt intends to continue this work and find a definite way of determining the amount of water in honey.

As to general results, Mr. Shutt found that there was a general tendency of about 2 percent more water in the uncapped than in capped honey.

There is very little adulterated honey in Canada, the article used to adulterate being generally glucose. As to the difference between the honey from the honey-house and cellar, he wished a committee to decide. He believed the better way was to keep honey upstairs, not in the cellar.

In reply to a question Prof. Shutt said that Mr. Selwyn told him that, as to specific gravity, seasons of dryness of the atmosphere made a great difference.

A short address was then given on honey as a food.

Honey must be classed with saccharine food only. Foods contain the following: Protein or albumenoids; fat; starch and sugar; ash or mineral matter.

1st. Protein contains nitrogen, as the white of an egg, curds of milk, the gluten of wheat.

2d. Fat—this everyone knows.

3d. Starch and sugar—carbohydrates.

4th. Ash and mineral matter, which forms bone.

We require nitrogen to build up the broken-down and worn-out tissue; the others do not contain this element.

We obtain heat and energy from fats and sugars.

Where does honey come in? It produces heat and energy. It is not the food we eat but what we digest that is valuable. Honey is a food in a partially digested form, and in honey we are saved the expense of partially converting the food. Honey is used as a medicine.

For ages before Christ, honey was the only sugar known. Sugar from the sugar-cane was known to China and India 800 years B. C., but it had no commercial position for 1000 years after that.

Prof. Shutt did not think that honey was appreciated as it should be; it should be used more generally. More judicious advertising would be beneficial.

In liquifying honey it should be kept at 70 degrees, Centigrade, and not above. The essential oil is volatile; one should liquify at a low temperature.

Mr. Fixter, in explaining the selection of the samples, said:

The object I had in view in selecting the samples was to see if we could improve the quality. I therefore took three samples from July 1 to Aug. 5.

Did you extract some in September to get the specific gravity?

Mr. Fixter—No.

Mr. McEvoy—We believe when cool weather comes, the honey, though capped, is thinner.

Pres. Newton—Although Prof. Shutt has not obtained the results he desired, we have profited much by the address. I will appoint Messrs. Hall, Pickett and Emigh to report on the samples.

Report of Inspector of Apiaries.

During '901 I visited bee-yards in the counties of Bruce, Grey, Perth, Oxford, Waterloo, Wellington, Wentworth, Halton, Peel, York, Ontario, and Simcoe.

I inspected 77 apiaries and found foul brood in 29 of them, and dead brood of other kinds in many others.

Some bee-keepers secured the comb from others who had lost many colonies of bees, and, not knowing that these combs were diseased, brought them home and put them into use, and thus spread the disease in their own apiaries.

When foul-brood matter dries down it glues itself fast to the lower side and bottom of the cells, and there it will remain just as long as the comb lasts, and in old, dark combs the stain-mark left in the cells from the disease is not yet noticed by those who never had any experience with foul brood.

It is when the disease becomes widely spread that the bee-keepers wake up to the fact that their colonies have foul brood. These mistakes, which have so often ended in big losses from bringing diseased combs into apiaries, should be a warning to bee-keepers not to deal much in old combs.

No bee-keeper would bring a diseased comb into his apiary if he knew that it contained foul brood, and the men who dispose of such combs don't know that they are diseased when they sell them.

I received many letters from bee-keepers asking me to visit their localities, and while inspecting there to stop with them. I was much pleased with the generous treatment which I received from every person, and in turn I felt in duty bound to help the people all I could in every possible way besides getting their apiaries cured of foul-brood, and I did so.

I am also pleased to say that nearly all of the largest and best-paying apiaries in the Province of Ontario are among the very many that I got perfectly cured of the disease years ago.

Wm. McEvoy.

Woodburn, Ont., Canada, Dec. 3, 1901.

Mr. Clarke thought it would be well to have a certificate of what had been done, and that the Inspector had visited the apiaries, and the condition in which he left each apiary.

Mr. Emigh said that the Government hired Mr. McEvoy, and he reported to them.

Mr. Holtermann said that Mr. McEvoy had to give an account to the Government; it is not a question of his honesty, but in a business-like way he should give account, and this he did.

Mr. Evans said that the Ontario Government looked pretty closely after the finances, and when they passed a statement we might be sure all was right.

Mr. Gray asked to whom to apply for Mr. McEvoy's services?

Answer—The president.

President Newton—I think it would be well to abide more closely to the rule in this report in the future.

The Directors' report was given, and considered satisfactory.

WEDNESDAY—AFTERNOON SESSION.

The president in opening the session said he had great pleasure in calling upon Mr. Murus, Mayor of Woodstock.

The Mayor welcomed the Association and its members; he knew but little about this line of business but thought that more should understand something about bees. He paid the Association a high compliment as to the intelligent appearance of its members. He thought more could engage in the business in general, and especially in the vicinity of Woodstock. He trusted that they would soon be found again convening in the city.

In closing, he welcomed the Association on behalf of the citizens.

Pres. Newton in reply said that the Association was very much pleased to receive the welcome extended, as such a welcome had a tendency to make the members feel at home. On their behalf he thanked the Mayor for his presence and address.

John Fixter, of the Experimental Farm at Ottawa, then gave the following:

Experiments to Test Whether Bees Injure Sound Fruit.

For many years the question as to whether sound fruit was injured by honey bees has been under discussion, but last year special attention was drawn to this question by a lawsuit between a fruit-grower and a bee-keeper, the former claiming that his fruit had been seriously injured by the bees of his neighbor, while the bee-keeper brought evidence to show that not only was this not the case, but that it was impossible. The question was of so much interest to bee-keepers that the following experiments were undertaken to determine whether bees, even when deprived of food, would attack fruit placed within their reach. The results here given indicate that such is not the case, which merely confirms the conclusions arrived at many years ago.

On Sept. 7, 1901, when there was no honey to be gathered on plants outside, ripe fruit of four different kinds, viz., peaches, pears, plums and grapes were exposed in different places near the Experimental Farm Apiary, where it was easily accessible to the bees.

A. Inside the bee-hives.

B. On branches of trees in the apiary enclosure.

C. On shelves in a workshop, to which the bees had access through an open window.

Every care was taken that all the fruit used in this experiment should be perfectly sound.

A. Inside bee-hives: The fruit was exposed in three dif-

ferent conditions, (1) whole fruit without any treatment; (2) whole fruit that has been dipped in honey; (3) fruit which had been punctured in several places with the blade of a pen-knife.

Four colonies were selected for this experiment, all of about equal strength. Each of these colonies was in a hive upon which was placed a super divided in the middle by a partition. From two of the hives all the honey had been removed; in the two remaining hives five frames were left, each having considerable brood honey around it. The former two weighed, on an average, 27 pounds, the latter 34½ pounds. In each one of the four hives the whole specimens of fruit not dipped in honey were hung within three empty frames tied together as a rack. The whole specimens of fruit dipped in honey were placed in one compartment of a super, and the punctured specimens were placed in the other.

The bees began to work at once both upon the dipped and the punctured fruit. The former was cleaned thoroughly of honey during the first night; upon the punctured fruit the bees clustered, thereby sucking the juice through the punctures as long as they could obtain any liquid.

At the end of seven days all the fruit was carefully examined. The sound fruit was still uninjured in any way, but had the surface polished and shining as if the bees had been traveling it, trying to find some opening through the skin. The dipped fruit was in a like condition, quite sound, but every vestige of honey had disappeared. The punctured fruit was badly mutilated and worthless, and beneath each puncture was a cavity, and in some instances decay had set in.

The experiment was continued the following week, the undipped, sound fruit being left in the brood-chamber. The dipped fruit was given a new coating of honey and replaced in the super, and a fresh supply of punctured fruit was substituted for that which had been destroyed.

At the end of the second week, the condition of this fruit was entirely similar to that of the first lot.

For the third week fresh samples of fruit of all the above kinds were used, because some of the sound fruit had begun to decay; this fruit, however, had the skin unbroken, and in no case had the bees done any damage. The result was the same as before.

After the third week the bees belonging to the two hives which had been deprived of the honey appeared to be sluggish, and there were many dead bees about the entrances of the hives. These colonies had lived for the first week on the punctured fruit, and on the honey of the fruit which had been dipped.

As there were at that season few plants in flower from which they could gather nectar, these bees had died of starvation, notwithstanding the proximity of the ripe, juicy fruit. This supply of food, which they were urgently in need of, was separated from them only by the thin skin of the fruit, which, however, this evidence seems to prove they could not puncture, as they did not do so, although they kept crawling over it continually.

The mean weight of each of these two hives Sept. 7, when the experiment was begun, was 27 pounds. At the end of the experiment, four weeks later, each had lost 3½ pounds.

The mean weight of the two hives in each of which were left five frames with brood and honey, was, at the beginning of the experiment, 34½ pounds. The mean loss of each of these hives was 2½ pounds.

B. Fruit exposed in the open air hung from the branches of a spruce tree in the apiary enclosure: In this experiment two sets of whole fruit were used, one being dipped in honey, the other punctured as before. The bees worked exactly as in the hives and with the same result.

C. Fruit exposed on shelves in a work-shop adjoining the honey-house: This, like the preceding experiment, consisted of dipped fruit and punctured fruit, although the bees did not work so freely inside the building as they did on the fruit hung outside on the trees and that in the hives; still, the results were practically the same in every case.

He had conducted experiments with the different sizes of hives, foundation and putting out bees.

In the matter of experimenting with fruit, Mr. Darling felt sure this experiment, and similar experiments conducted on the other side of the International line, would be of interest to bee-keepers and the public. As to Prof. Shutt's work he was surprised, yet not surprised, that there was the difficulty in detecting the percentage of water. He hoped Mr. Shutt would keep on and make a thorough investigation of the matter. As to practical experience in the apiary, he had no doubt all noticed that the grass becomes discolored at the entrance of the hive, no doubt from the fumes of formic acid from the

hive. He would endorse what Mr. Selwyn had said about the difference in the thickness of honey in certain seasons. The thin honey was not what the customers wish to purchase. Bee-keepers did not adulterate honey with water, but there was unripe honey put upon the market which destroys the market for good, thick, well-ripened honey.

Mr. Darling found that the longer the honey was left with the bees the riper and thicker it became.

Mr. Frith said this was a long-standing question, and of much importance. Many assertions were made, but they wanted evidence such as this. He was surprised that they had to admit that nectar did undergo some change in the hive.

Mr. Holtermann thought we should not let this statement pass; many have for years admitted that it does undergo some change.

Mr. Fixter asked if any one had trouble while picking fruit, or had they found bees working on sound fruit.

Mr. Evans—As a matter of fact, in seasons of scarcity the bees sometimes work on raspberry, but it is near the close of a season when berries are stunted and small; the bees do not sting the pickers unless they pinch them.

Pres. Newton—I think if raspberries are neglected and overripe they are attacked; not when ready for shipping.

Mr. McEvoy—I can endorse the president's statement.

Mr. Byer—I am convinced that bees will injure the raspberry even when not overripe.

Pres. Newton—I do not agree with Mr. Byer.

Mr. Chalmers—I agree with Mr. Byer.

Mr. Holtermann—I agree with Mr. Byer, but it is not often, and the bees help to fertilize the blossom, therefore doing more good than harm.

ELECTION OF OFFICERS—PLACE OF MEETING.

President—J. D. Evans; 1st Vice-President—James Armstrong; 2nd Vice-President—W. A. Chrysler; Secretary—Wm. Couse, Streetsville, Ont.; Treasurer—Martin Enigh. Directors—J. D. Evans, Jas. Armstrong, W. A. Chrysler, W. J. Brown, J. K. Darling, C. W. Post, A. Pickett, J. W. Sparling, M. B. Holmes, John Newton, F. A. Gemmill, Samuel Wood, and Prof. Harrison; Auditors: William Nolan and H. Sibbald; Inspector of Apiaries: William McEvoy; Assistant, F. A. Gemmill; Representative to Toronto Exhibition, A. Pickett; Western, J. F. Miller; Ottawa Exhibition, J. K. Darling; next place of meeting, Barrie, Ont.; Revising Committee, Messrs. Heise and Evans.

(Continued next week.)

Questions and Answers.

CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

(The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.)

Historical—Dead Bees and Wintering.

1. Where and by whom was the first copy of the American Bee Journal printed? What date is the oldest number?
2. Is one quart of dead bees too much to indicate bad wintering, at the present date (Jan. 7), from 18 colonies?

PENN.

ANSWERS.—There lies before me a volume, whose title page reads as follows:

The American Bee Journal.
Edited by Samuel Wagner.

Volume I—1861.

Published by

A. M. Spangler, Book and General Job Printer,
No. 25 North Sixth St., Philadelphia.

It was a monthly publication, the first number appearing January, 1861. There are 284 pages in the volume, about 24 pages each month. The printed surface on each page was a little more than a half that on the page of the present number—to be exact, four-sevenths. Comparing the volume for 1861 with that for 1901 (40 years later) the printed surface of the latter is a shade more than five times as much as the former. If the subscription price had been continued at the same rate in proportion to the printed surface, it would now be \$5.00 a year instead of \$1.00. Samuel Wagner, living at

York, Pa., the editor of the first volume, was a fine German scholar, and the first volume was and is especially valuable because of what is drawn from German success, and because of its containing the Dzierzon theory, with which every bee-keeper should be familiar if he would be up in his calling. No single volume of any bee-paper has been so valuable to me as Volume I. of the American Bee Journal, and to this day I refer to it frequently.

2. No; I should say that is not at all a large quantity of dead bees up to Jan. 7.

Transferring and Swarming.

I have a colony of bees in a box-hive and I am going to transfer into a Danzenbaker hive in the spring. Will a swarm issue from them? and will it store any surplus honey during the season?

RHODE ISLAND.

ANSWER.—If you make no blunder in transferring, the colony ought to do about the same at swarming and storing honey as if it had not been transferred. Some, however, prefer to leave the colony undisturbed until it swarms, hiving the swarm in the new hive, then transferring about three weeks after swarming.

Danzenbaker vs. Langstroth Hive.

If the Danzenbaker hive is preferable to the Langstroth hive for the production of comb honey, are the closed-end frames an advantage? Wouldn't the bees stick propolis all over them so they could not be manipulated?

OHIO.

ANSWER.—I think closed-end frames ought to be better for wintering outdoors than open-end frames. But I found them so difficult to handle that I gave them up. Where propolis is not so plenty they would not be so bad, but if I had to use Danzenbaker hives I should prefer to live where there was no bee-glue.

Moving Bees a Long Distance.

I want to move 90 colonies of bees as far west as Omaha, Neb., by railroad. I will describe their condition and a plan that I have in mind for preparing them for the journey, and if, in your judgment, it is not complete, add what you think would make it so.

I expect to ship April 15 or 20. The bees are all in 8 and 10 frame St. Joe hives, on metal spacers, so the frames can not get misplaced sidewise. My plan is to put an extra strip on the bottom-board, making the space below the frames about $\frac{3}{4}$ inch, and close the entrance tight, and give them the same space above, with a strip across the top-bars at each end so they cannot shake, covering each with screen-wire, then with the lid or hive-cover off tier them up in the car. The frames are to run with the car, placing two strips of inch lumber between each tier, then fasten them securely so they cannot move. The distance is 382 miles. If they were not shut up over 48 hours would they get through without water?

ILLINOIS.

ANSWER.—It seems to me your plan hardly leaves anything to desire, so I have no suggestion to make. In April it hardly seems they ought to suffer for water if confined not more than 48 hours; still, it will not be a difficult thing to give each colony a small sponge or a rag filled with water.

Why Not Help a Little—both your neighbor bee-keepers and the old American Bee Journal—by sending to us the names and addresses of such as you may know do not now get this journal? We will be glad to send them sample copies, so that they may become acquainted with the paper, and subscribe for it, thus putting themselves in the line of success with bees. Perhaps you can get them to subscribe, send in their dollars, and secure for your trouble some of the premiums we are constantly offering as rewards for such effort.

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GENERAL ITEMS

Beginner's Experience with Bees.

The more I read the American Bee Journal the more I want to, hoping in this way to learn more about the little bees of which I know very little, although I have been keeping and handling them for five years.

When I captured my first swarm off some weeds at the end of a corn-row that I was cultivating, I thought I had performed a great feat. I also thought within a few years I would be a full-fledged bee-man. But I have found there are many things to learn about bee-keeping.

I kept this swarm in a salt-barrel (with a cross and support) the first season and winter. The following spring (having lots of hogs and only one barrel of bees) I traded a hog for a colony of bees in a deep box-hive, and an extra hive; then I transferred the old colony from the barrel to the box-hive. I did not like the hive, although the man I got them of said they were about as good as any made.

At this time I procured "A B C of Bee-Culture," and learned of the Langstroth hive, and at once sent for three of them, and I am using nothing else now.

I got along very nicely for a couple of years; then I had 13 colonies. I had been wintering them on the summer stands, but the winter of 1889-90 I lost eight of the 13 before the winter was half over. So I put the remaining five colonies in the cellar under the dining-room, as we had just completed a new house, and I had built a cellar large and roomy; I concluded it was a better place for the bees of Nebraska. Our cellar is 10 feet deep, 15 by 22, brick walls, cement floor, ceiling lathed and plastered, and entrance from the east porch. I take the window out and slat the hole and pack with straw. The mercury stands at 42 degrees until near spring or warm weather. I have never lost a colony in the cellar from any cause. So it is natural for me to advocate the cellar-wintering for bees.

The season of 1900 was so dry and hot here, or something, that my bees stored very little honey, and cast only one swarm from the five colonies.

The past season was a good one here. One colony of hybrids that did not swarm stored 96 pounds of comb honey, and another 80 pounds, which I thought was good.

I had one colony whose queen got crippled, losing a wing, and she must have been a superseded queen, because she laid nothing but drone-eggs, or all the brood was drone-brood from her eggs. Well, I tried for about three weeks to get them to start queen-cells by giving fresh frames of eggs and brood from other hives, but they would not. So some time in September I sent for a queen to put with them. Well, sir, Mr. York, those bees had become so indolent, or lazy, or something (I

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will let you name it), that they would not try to release the queen from the cage. So after about 50 hours of waiting I let her out of the cage, to go in among them, and everything seemed all right from that on. In a few days she began laying, and October being a fine month, by feeding I kept her laying all through the month, and I think they are all right for winter.

I fed granulated sugar syrup. And right here I would like to ask, Is there any danger of this granulating in the cells so hard that the bees cannot get it out?

W. H. Root.

Cedar Co., Nebr., Dec. 24.

[Yes, there is danger if you used no acid. If you feed as early as August or early in September, and use equal parts of sugar and water, the bees will so prepare the food that it will be all right without any acid. But if you feed as late as October and use as much water as sugar, there is danger that the bees will not succeed in evaporating the feed sufficiently; and possibly if they should get it thick enough they would not produce the chemical changes that prevent granulation. So if you must use syrup in October, take 2 pounds of water to 5 of sugar, and about the time the sugar is dissolved stir into it an even teaspoonful of tartaric acid for every 20 pounds of sugar, first dissolving the acid in a little water.—EDITOR.]

Wintering Bees—Arnica for Bee-Stings.

I have been a constant reader of the "Old Reliable" for the last three years—have read every issue very carefully—and noticed the many questions and their answers, and the opinion of different bee-men on the honey-bee question. I am well pleased to hear bee-men give their plans and opinions and new ideas for publication in the American Bee Journal, for it is in this way we all learn something new.

I winter my bees on the summer stands. I have what I call a winter-case, made five inches larger all around than the hive, and six inches higher, so as to admit a super on top of the hive. In September I place this winter-case over each hive and pack them well with chaff, putting a Hill's device over the frames, then a winter super—that is, a super without any slats across the bottom—then a piece of burlap followed by a thick, heavy cushion which fills the super, making four inches right over the cluster. Then I put on a cover on top of the super, then the cover on the winter-case, making all tight and warm. I have used this way of wintering for a number of years and have never lost a colony of bees, and we have some pretty cold weather here in Michigan.

My apiary consists of 13 colonies, as I live in the city and have not very much room. I keep the increase down and work for comb honey. As soon as my bees fly well in the spring I commence to feed; not because they are starving, but to stimulate them and start the queen to laying. Then when the honey-flow comes, which is white clover here, my bees are ready for work, for the hives are full of bees. If they choose to swarm I let them come out and cluster, then I set a new

hive on the old stand with six frames of full sheets of foundation, and a division-board on the outside, as the hives are all 8-frame. I then hive the swarm and cover them up until the next morning, when I take the frames out of the old hive and shake off almost all of the bees in front of the new hive, and if there is any unsealed brood I place that in another hive, leaving nothing but sealed brood in the old hive. Then I place a super on the new hive, and on the super I put a piece of window screen that just fits the sides of the hive. I then place the old hive on top of the super, making all tight so as to keep all the heat which rises from the lower hives. This keeps the brood warm, and soon all will be hatched out; then I shake them off the frames in front of the lower hive. When all are hatched out I take the hive off and keep the cover for other swarms. As soon as the flow stops I take out the two division-boards and put in two frames of worn-out combs. This gives the bees a chance to fill up for winter.

How often we hear the question asked, What is good for the bee-sting? But of all the answers that have been given in the bee-papers I failed to see the remedy that I have been using, and with success. I will give it here so if any one needs it next season he will have an opportunity to try it: Arnica. Simple, isn't it? Well, try it and be convinced. Simply remove the sting and apply the arnica; the pain stops, and the swelling stops. In 15 minutes you will not know that you had been stung. I have used it for several years.

L. D. CARRIER.
St. Joseph Co., Mich., Jan. 4.

Foul Brood—Queens—Candied Honey.

In renewing my subscription to the American Bee Journal I must say that I do not see how a bee-keeper can do without it, although at this time I can hardly class myself as a "bee-keeper." I did not keep mine. That dread disease, foul brood, or its nearest relative, whatever it is, has cleaned me out, and I gave up the fight. Sixty-five colonies last fall, and two colonies this fall, is my record. In five years I have lost over 250 colonies, and I now have come to the conclusion that it is of no use to attempt to keep bees in this locality, as a business, for several years to come, or not until the wild bees in the woods are also dead.

Colonies treated by the McEvoy plan last year (1900), developed the disease this year (1901), the larvae dying before being capped over in most cases, but two colonies capped their brood before it died. They gave off the "glue-pot" odor, and the others did not.

Now I am looking for another location, and shall "try again," as I have retired from railroad work and aim to amuse myself with the pets I have loved so many years.

In regard to buying queens, I have bought half a bushel, or at least have a half bushel of old queen-cages, but very few I ever bought lasted one year. Of the bright yellow, 80 per cent died the first winter. I have bought queens from Texas to Michigan, and none gave the satisfaction that I got from queens

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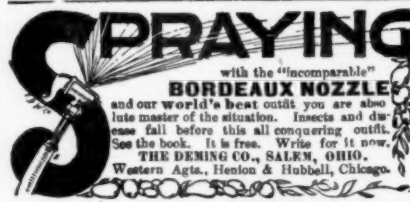
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of my own rearing. Still, I will buy again when I need them.

Now in regard to candied honey: For 20 years I have produced both comb and extracted. I have never seen candied honey, and have never had any of my extracted show even signs of candying, and have kept it for three years in glass and earthen vessels. When I am short of extracted and buy to fill out, I find the honey candied nearly to the top of the can. I wish some of the wise ones would tell the reason for this.

This American bottom (St. Clair Co., Ill.), is a good location for honey-production if free from disease, but without a State inspector I fear to risk it any more. Some bee-keepers do not know the disease (foul brood), and let weak or dead colonies be robbed out. Others who do not know allow the same thing, and deny having the disease. They go on spreading it by selling to anyone who will purchase. So the need of a State inspector becomes more apparent every day.

What has become of my old comrade, Hon. Ed. Whitcomb? I do not see him mentioned in the American Bee Journal any more. Wake him up, please.

If I secure a suitable location you will probably hear from me again.

C. A. HAINES.

St. Clair Co., Ill., Dec. 20.

[Mr. Whitcomb will please consider himself called, and "wake up."—Ed.]



Long Tongues and Red Clover.

In the report of Prof. Gillette, as published in this journal recently, he expresses some doubt as to bees getting nectar from red clover, because the greatest tongue-reach does not exceed .23 inch, while red-clover tubes vary from .34 to .37 inch. To this Editor Root replies in Gleanings in Bee-Culture:

In regard to this last, I feel that Prof. Gillette has gathered a wrong impression, and certainly wrong in supposing that pollen may be the only thing sought by the bees. The red-clover corolla-tubes grown throughout the East, as I have measured them, in hundredths of an inch, vary all the way from .12 to .36 or .37 in length, the depth increasing from the outside to the center. In the rain-belt, at least, I am sure I am right for these measurements. What they may be in Colorado I am not able to say. As nearly as I can estimate, half of the tubes in an ordinary head of red clover come within the range of .20 and .22; so that the bees that have a tongue reach, no matter what their tongue length may be, will be able to gather from half of the tubes; and probably half of all the nectar in the head, as they get some out of the long tubes. That there is honey in these tubes is well known, a fact which can be easily demonstrated. All one has to do is to pull the tubes at the right season of the year, squeeze one between the thumb

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Langstroth on "The Honey-Bee"

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and finger, and a good-sized drop of nectar will issue from the end.

Nay, I have gone further. I have watched bees working on red clover, and I have repeatedly seen them extract all the nectar out of the shallow tubes, and draw it down in the long tubes to a point just equal to their reach. While the bees do, of course, gather some pollen from red clover, yet I think the fact is demonstrated beyond doubt that tons and tons of such honey is gathered, because there are times when nothing else is in bloom, and the bees will store in sections quantities of honey that tastes very much like the bumble-bee honey of our boyhood days.

On all other points I believe the Professor's conclusions are mainly correct, except that some bees have greater reaching powers, probably, than actual measurements will show. His tables show a variation in tongue reach in Italians from .15 to .22. It will be noticed that he says he had measured the tongues from red-clover bees, and also the tongues of those that were said *not* to work on that plant, and that he was "unable to find any difference in *tongue length* in favor of the clover workers." (The italics in this case are mine.) It would be interesting in this connection to know whether those same bees showed a difference in tongue reach; for, as the professor has very properly shown, there is a difference in tongue reach and tongue length, and the variation of the former is much greater than the latter.

It has been shown—indeed, I believe it is generally admitted—that some bees will gather much more honey from red clover than others. Whether there is a physical difference between them has not been proven so far; and, to speak frankly, it looks now as if tongue length certainly has nothing to do with it. Whether tongue reach has or not, will have to be determined by means of much more perfect glossometers than have yet been devised. I saw glossometers, because I am convinced that the rule plan of measuring (which I have hitherto advocated) is not altogether reliable. It gives an *idea*, but does not show what the bees will or can actually reach when alive.

"Bee-Fever."

DEAR FRIENDS:—I have been obliged to delay writing to you, as I have been "laid up for repairs." A tale hangs to this which I can best tell you by copying an extract from a letter that the partner of my joys and sorrows wrote to her sister. It may have interest for you, as you will see that you are clearly "accessory before the fact," and must bear your share of the penalty:

"Oh, good gracious! I must tell you of the new ailment that is afflicting Harry. You know what an enthusiast the dear fellow is in everything he touches, and how his geese are always swans. This time it is the bee-fever, to which typhoid is simple, and even yellow jack is less virulent. You cannot dream of such absolute absorption. Nothing is of interest unless it concerns bees. Just think, my sitting-room table is covered with bee books and magazines, which I must not move, as he runs in four hundred times a day to consult them and see (I reckon) if his



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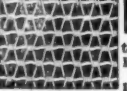
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bees are working according to rule. Every little, miserable weed in the country near and far he has entered in a book—when it blooms, how long, and how good for bees, and his talk is bee, bee, bee, until I can hear the buzzing. I do believe he has a personal acquaintance with each one. I know he has with the queens, for they each have a name painted on their box: 'Yellow Rose of

to the house, and two men assisting him (I leave out what he was saying). I ran to him with, 'Oh, Harry, are you hurt? Are you injured, dear? Any bones broken?' I could see he was in much pain, but bless you, he gave me one of those high and mighty looks of his, and his lip curled up in scorn as he fairly yelled: 'Hurt! Bones broken! Injured! Why, woman, I tell



APIARY OF R. RODENBERGER, OF MILWAUKEE CO., WIS.
(See page 68.)

Texas,' 'Southland Queen,' 'The Lone Star,' etc., and if he does not talk to them I am confident they talk to him, for he can tell by their sounds just what they are doing.

"Some one from Texas sent him some queens, and his anxiety and expectation before they came, and while looking for them, was somewhat akin to what we experienced before the advent of another little stranger whom you know. But when they did come you never saw the like. 'Oh, mother, come look—oh, the beautiful things!—oh, how grand!' I had never seen a queen, and naturally I expected to see something gorgeous. I looked into the little box he was holding up to me and innocently asked (never dreaming of provoking him): 'Is that little brown thing the queen?' You ought to have seen the look of disgust and indignation I received. 'Little brown things! Why, woman, where are your eyes? She is two inches long and yellow as gold,' with which, after glaring at me, he marched out in the high sulks.

"Well, pretty soon he came back all smiles and good humor to tell me he had now introduced them. This seemed an unnecessary formality to go through with insects, I thought, but I did not dare to say anything. All he could do then, was to wait a week and see if they had 'took,' or something (may be it is like vaccination).

"At the end of the week here he comes for my embroidery scissors to cut off their legs or wings or something, and pretty soon I heard a terrible commotion at the barn, and a man came running to tell me he had dislocated his shoulder by a fall. I ran as fast as I could, and met the procession coming

you my queen is gone! What do you mean by talking of bones when I have lost my queen? Just like a woman!

"We got him to bed to find his shoulder was dislocated, and it has taken many weeks to get well. It seems his blessed queen got away and lit away up inside the barn, when he went climbing and clambering up after her, when something broke and gave him a terrible fall. It had no effect on the fever, for it is certainly as bad as ever, a case of 'ruling passion, strong in death.' For my part I feel and hear nothing but 'buz, buz, buz,' all day long. Do not be surprised if you hear of my 'swarming' any time."

Some people may think it was not in good taste for me to thus read my good wife's letter and then send it to others, but you see there is a moral in it. I wish to impress upon others the truth of the old adage that "listeners never hear any good of themselves;" besides, I need sympathy.—HONEY-BUG, in the Southland Queen.

Feeding Back.

J. E. Hand, who says he produced in the past season 2000 pounds of extra-fancy comb honey by feeding back, discusses the matter with a friend in Gleanings in Bee-Culture. Part of the conversation is as follows:

"What do you think of Mr. Doolittle's experience in feeding back?"

"I am not at all surprised at the results of his experiments. I have had about the same experience, and so will any one else who tries to feed back with a frame as deep as the one he uses. However, I consider his frame about

as well adapted to feeding back as it is to producing comb honey when gathered from the fields."

"Then you consider that a hive that is well suited to the production of comb honey is just as well suited to feeding back?"

"Yes, that is my experience exactly. Mr. Doolittle fed his bees 50 pounds of honey, and they only just got to building comb nicely, and then they struck and refused to do anything, after which he gave up the whole business in disgust, as almost every one else does who tries it."

"What do you think became of that 50 pounds of honey?"

"Well, I will tell you what I think became of it. You will notice he says he fed them about 15 pounds each, which they carried off during the day. At that rate it would take only a little over three days to carry off the 50 pounds. They were not building any comb; and as it takes three or four days of feeding to start comb-building there could be no place to store the feed except in the brood-chamber; and as his frame is 11 1/4 inches deep, there was plenty of room for it, or the queen might have been a poor one, and the bees simply crowded her out and filled up the brood-chamber. I have often found this the cause of a failure in feeding back. A good queen will compel the bees to move the honey out and give her room, while a poor one will be crowded out completely, and the brood-chamber crammed full of honey, after which the bees will work about as Mr. Doolittle says his did."

"Do your bees ever refuse to work in the feeders?"

"Well, not so bad as that; but there is a great difference in the working qualities of bees. Some will build comb faster, and cap their honey whiter. I keep a pedigree of these bees, and use them for feeding back. They are also likely to do better field-work. I had three colonies this year out of 50 that I could not make do satisfactory work. Two of them were poor comb-builders, and the other capped the honey so badly that it was not fit to sell. Those queens will lose their heads next spring."

"How much do you find it profitable to feed at a time?"

"I give them all they will take up in 12 hours if they are building comb; if not, I feed about a quart per day until comb-building is started nicely. My best colonies would take about 2 quarts every 12 hours."

"How long would they keep this up?"

"They kept it up this year from August to Sept. 25, when the weather became too cool for comb-building."

"What kind of hive do you consider the best suited to feeding back?"

"There is only one kind of hive that I know anything about that is at all suited to feeding back. It must have a very shallow frame, and must be capable of contraction horizontally so that the brood will be spread out evenly under the super. The Heddon is the only one that will do it."

G. B. Lewis Co., Watertown, Wis., are among those who believe in patronizing the advertising columns of the American Bee Journal. Hence we are glad to acknowledge the receipt of their neat catalog for 1902. It contains 48 pages and cover. See their advertisement on another page. In writing them, always mention the American Bee Journal, as it will help both them and us.

CONVENTION NOTICES.

Wisconsin.—The Wisconsin State Bee-Keepers' Association will hold its annual convention in the State Capitol, at Madison, Feb. 5 and 6, 1902. This promises to be a large convention. All are invited to attend. There will be excursion rates of 1 1/2 fare for the round-trip, good for all of the first week in February.
N. E. FRANCE, Pres. ADA L. PICKARD, Sec.

New York.—The annual meeting of the New York State Association of Bee Keepers' Societies will be held in the parlors of the Kirkwood Hotel, Geneva, N.Y., Wednesday, Feb. 5, 1902, commencing at 10 a.m. All interested in bee-culture are cordially invited to be present. Subjects of importance are to be brought before this meeting, and it is desired to have a large representation of bee-keepers in attendance.
C. B. HOWARD, Sec., Romulus, N. Y.
W. F. MARKS, Pres.

Utah.—The Utah State Bee-Keepers' Association will hold its annual convention in the City and County Building, Salt Lake City, April 5, 1902, at 10 a.m. This promises to be an interesting convention. All are invited. It is desired to form an exchange for the protection and benefit of our bee-keepers. Come and aid a good cause. It is expected that every county will be represented.
J. B. FAGG, Sec.
E. S. LOVESY, Pres.

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HONEY AND BEESWAX

MARKET QUOTATIONS.

CHICAGO, Dec. 21.—The honey market is of a slow nature with little change in price of any of the grades. Choice grades of white comb honey, 14 1/4@15c; good to No. 1, 13 1/4@14c; light ambers, 12 1/4@13c; dark grades, including buckwheat, 10@12c. Extracted, white, 5 1/2@7c; amber, 5 1/4@5 1/2c; dark, 5@5 1/4c; the scale of prices varying according to flavor, body and package. Beeswax steady at 28c. R. A. BURNETT & CO.

CINCINNATI, Jan. 21.—The demand for honey is fair. Extracted honey is offered freely. Dark brings 5c; lighter, 5 1/4@6c; fancy, 6 1/4@7 1/4c. Comb, fancy, 15c; lower grades, 12 1/4@13 1/4c.
C. H. W. WEBER.

ALBANY, N. Y., Jan. 22.—Honey market quiet and firm for all grades of comb honey, of which very light stock is on hand. White, fancy, 15c; No. 1, white, 14c; mixed, 13c; buckwheat, 13c. Extracted, white grades slow sale, and price uncertain. Straight buckwheat extracted scarce at 6c. Beeswax, 28@30c. H. R. WRIGHT.

BOSTON, Jan. 20.—Strictly fancy comb honey in cartons, 15 1/2c; A No. 1, 15c; No. 1, 14 1/4c; very little No. 2 to offer; stock nominally running No. 1 and A No. 1. Extracted, light amber, 7 1/2c; amber, 7c; Florida honey, 6 1/4@7c.

Our market continues somewhat dull in the demand for honey, while stocks are ample for the balance of the season, unless there should be a much larger demand than we at this moment anticipate.
BLAKE, SCOTT & LEE.

NEW YORK, Jan. 9.—Comb honey continues in good demand with supplies pretty well exhausted, and we quote: Fancy white, 15c; No. 1, 14c; No. 2, white, 13c; amber, 12c; dark, 10@11c. Extracted dull with large supplies and quotations on large lots generally shaded in order to effect sales. We quote: White, 6 1/4@7c; amber, 5 1/4@6c; dark, 5@5 1/4c. Beeswax firm and rather scarce at 28@29 1/4c.

HILDRETH & SEGELKEN.

DETROIT, Dec. 20.—Fancy white comb honey, 14@15c; No. 1, 13@14c; no dark to quote. Extracted, white, 6@7c. Beeswax, 25@26c.

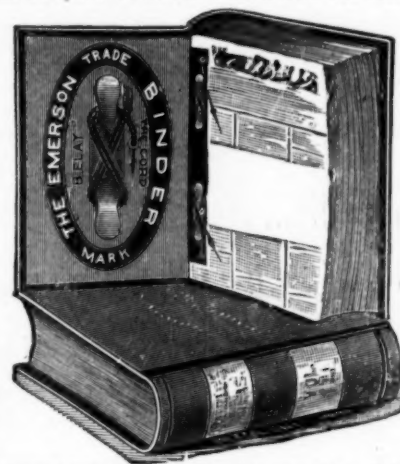
M. H. HUNT & SON.

SAN FRANCISCO, Jan. 15.—White comb, 11@12 1/2 cents; amber, 8@10c; dark, 6@7 cents. Extracted, white, 5 1/2@6c; light amber, 4 1/4@5c; amber, 4@5c. Beeswax, good to choice, light, 26@28c; dark, 24@25c.

There are no changes to record in quotations, but outside figures are more in accord with jobbing prices than with the views of wholesale buyers. The inquiry is light. Offerings are not heavy, however, either at this center or at interior producing points, and in consequence of dry weather the tendency of values is to more firmness.

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CHANGE OF DEPOTS.

On and after Sunday, Jan. 29, all passenger trains of the Nickel Plate Road will stop at 31st Street Station, Chicago, instead of 22d Street, as formerly. The latter station will be abandoned after that date. 1-5A1

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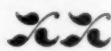
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